

Photometric Test Report

Relevant Standards

- ☒ ANSI/IES LM-79-2019
- ☒ ANSI C82.77-2017

Prepared For

RAB Lighting Inc.

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Issue Date: 2025-08-21

Revised Date: N/A

1.0 Test Summary

Wall mount Luminaire					
Requirement Category		Test Method	Requirements		Test Value
Luminaire Output (lm) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	N/A		1856
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	122.9
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.1
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	4.66
				277V	21.19
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	0.994
				277V	0.919
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	5029±283	4965
			4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		91.0
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		74
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		87
Minimum Rg (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥89		94
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-5%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	N/A		26.7%
Backlight, Uplight and Glare (BUG) Ratings (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019 IES TM-15-11	N/A		B0-U4-G2
Input Voltage (V)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Cast		277.0
(Goniophotometer – Section 4.2)			Non-Worst Case		120.0
Input Current (A)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		0.059
(Goniophotometer – Section 4.2)			Non-Worst Case		0.122
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.1
(Goniophotometer – Section 4.2)			Non-Worst Case		14.5

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-08-07	V1-24 @15W5000K	-	250728007-S1
2	Goniophotometer Test	2025-08-07	V1-24 @15W5000K	-	250728007-S1
3	THD and PF Test	2025-08-07	V1-24 @15W5000K	-	250728007-S1

Remark (If any):

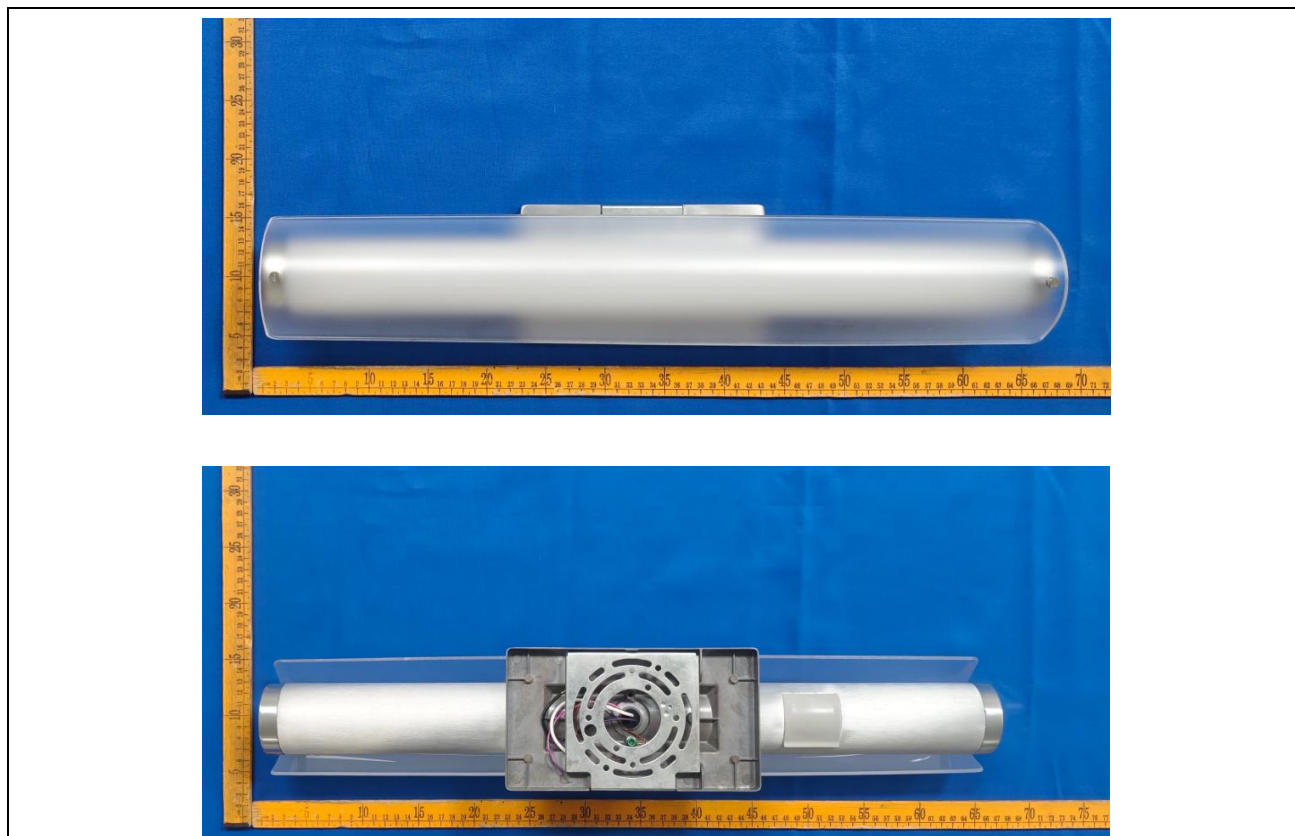
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. V1-24 @15W5000K, color tunable from 2700K, 3000K, 3500K, 4000K and 5000K.

Electrical Specification: 120-277Vac, 50/60Hz

Photos of Luminaire Characteristics



4.0 LM-79 Measurement and Test Results

4.1 Integrating Sphere Test

Model No.	V1-24 @15W5000K	Sample ID	250728007-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

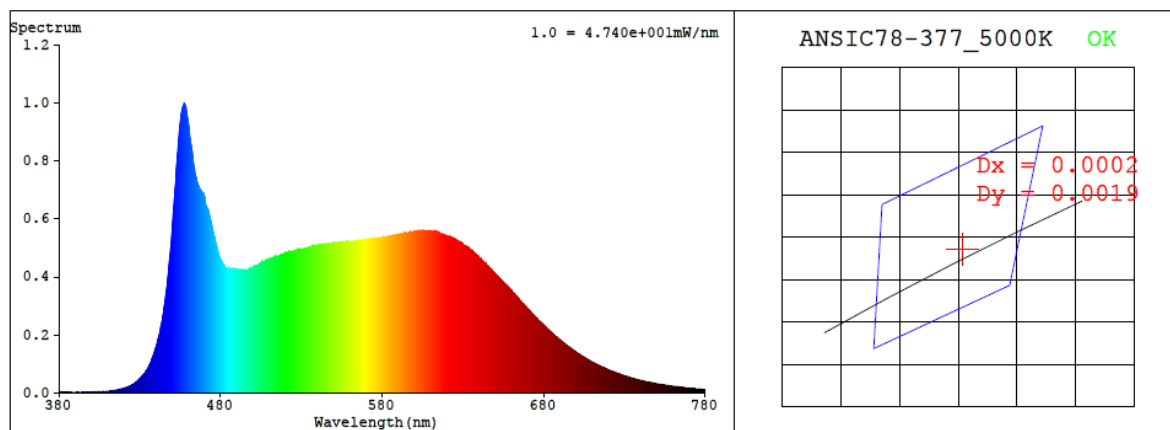
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere.</p> <p>The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ±0.2 percent under load.</p> <p>The sample was measured using 4π geometry and operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780nm.</p>

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
120.0	60	0.122	14.5	0.994
277.0	60	0.059	15.1	0.919

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4965	91.0	74	0.0009	1.5	87	94	-5%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3463$ $y = 0.3543$ / $u' = 0.2112$ $v' = 0.4862$ ($duv=8.88e-04$)

CCT= 4965K Prcp WL: $L_d=572.3nm$ Purity=10.2%

Peak WL: $L_p=458nm$ FWHM: $=29.0nm$ Ratio: $R=17.8\%$ $G=75.8\%$ $B=6.4\%$

Render Index: $R_a = 91.0$ AvgR = 89.4 TM30: $R_f=89$ $R_g=96$

EEL: 0.11565 A+

R1 =96 R2 =97 R3 =93 R4 =86 R5 =92 R6 =94 R7 =87

R8 =84 R9 =74 R10=95 R11=89 R12=67 R13=99 R14=97 R15=92

4.1 Integrating Sphere Test

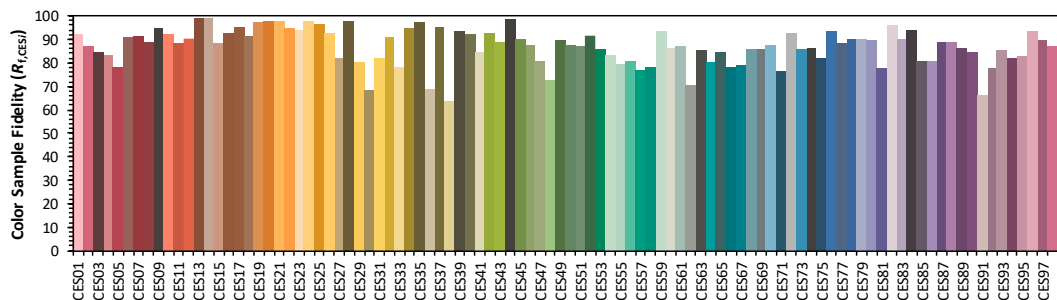
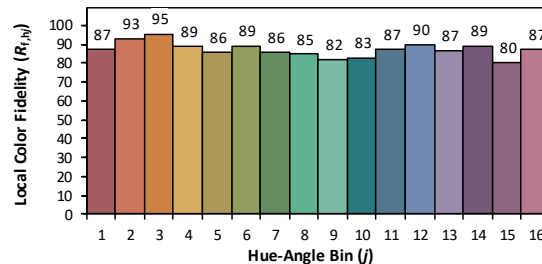
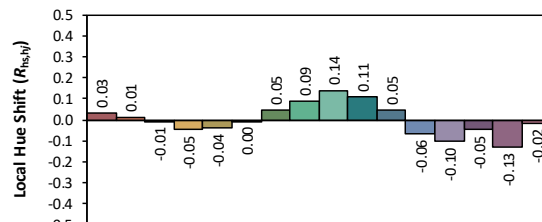
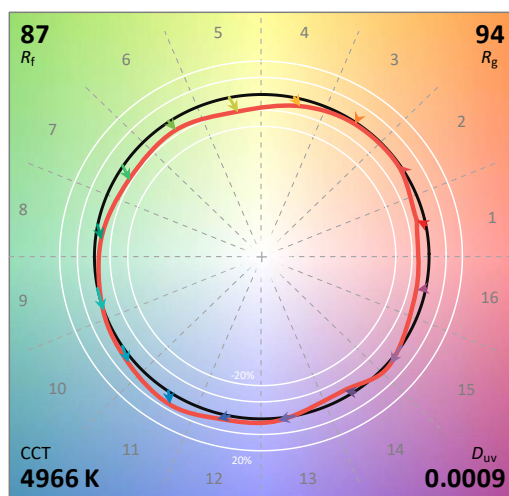
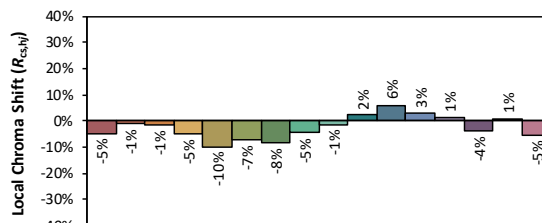
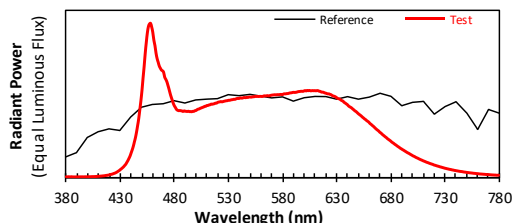
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc

Date: 2025/8/21

Model: V1-24 @15W5000K



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.3462
 y 0.3542
 u' 0.2112
 v' 0.4861

CIE 13.3-1995
(CRI)

R_a 91
 R_g 75

4.1 Integrating Sphere Test

Spectral Distribution over Visible Wavelength											
WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)
380	2.70E-06	447	3.78E-04	514	4.71E-04	581	5.36E-04	648	4.23E-04	715	9.24E-05
381	2.00E-06	448	4.34E-04	515	4.70E-04	582	5.37E-04	649	4.17E-04	716	8.92E-05
382	2.90E-06	449	4.92E-04	516	4.72E-04	583	5.37E-04	650	4.10E-04	717	8.70E-05
383	2.10E-06	450	5.59E-04	517	4.73E-04	584	5.39E-04	651	4.04E-04	718	8.45E-05
384	2.20E-06	451	6.38E-04	518	4.77E-04	585	5.39E-04	652	3.99E-04	719	8.25E-05
385	2.70E-06	452	7.13E-04	519	4.77E-04	586	5.41E-04	653	3.93E-04	720	7.90E-05
386	1.60E-06	453	7.98E-04	520	4.82E-04	587	5.43E-04	654	3.87E-04	721	7.70E-05
387	1.80E-06	454	8.69E-04	521	4.84E-04	588	5.43E-04	655	3.81E-04	722	7.49E-05
388	1.60E-06	455	9.31E-04	522	4.85E-04	589	5.45E-04	656	3.75E-04	723	7.25E-05
389	2.00E-06	456	9.71E-04	523	4.87E-04	590	5.47E-04	657	3.70E-04	724	7.06E-05
390	1.70E-06	457	9.87E-04	524	4.85E-04	591	5.46E-04	658	3.64E-04	725	6.85E-05
391	2.30E-06	458	9.91E-04	525	4.87E-04	592	5.46E-04	659	3.59E-04	726	6.61E-05
392	2.20E-06	459	9.67E-04	526	4.89E-04	593	5.48E-04	660	3.53E-04	727	6.46E-05
393	2.20E-06	460	9.33E-04	527	4.91E-04	594	5.50E-04	661	3.45E-04	728	6.22E-05
394	2.20E-06	461	8.83E-04	528	4.92E-04	595	5.52E-04	662	3.40E-04	729	6.05E-05
395	2.30E-06	462	8.48E-04	529	4.93E-04	596	5.52E-04	663	3.34E-04	730	5.81E-05
396	2.00E-06	463	7.99E-04	530	4.95E-04	597	5.53E-04	664	3.28E-04	731	5.67E-05
397	2.50E-06	464	7.64E-04	531	4.95E-04	598	5.53E-04	665	3.22E-04	732	5.47E-05
398	2.60E-06	465	7.41E-04	532	4.97E-04	599	5.53E-04	666	3.15E-04	733	5.32E-05
399	2.50E-06	466	7.16E-04	533	4.99E-04	600	5.56E-04	667	3.08E-04	734	5.15E-05
400	2.70E-06	467	7.02E-04	534	5.00E-04	601	5.58E-04	668	3.03E-04	735	5.01E-05
401	3.10E-06	468	6.90E-04	535	5.02E-04	602	5.56E-04	669	2.97E-04	736	4.88E-05
402	2.80E-06	469	6.85E-04	536	5.01E-04	603	5.59E-04	670	2.90E-04	737	4.69E-05
403	3.20E-06	470	6.77E-04	537	5.04E-04	604	5.57E-04	671	2.85E-04	738	4.57E-05
404	3.60E-06	471	6.45E-04	538	5.07E-04	605	5.59E-04	672	2.78E-04	739	4.39E-05
405	3.60E-06	472	6.31E-04	539	5.07E-04	606	5.56E-04	673	2.72E-04	740	4.28E-05
406	3.90E-06	473	6.15E-04	540	5.07E-04	607	5.57E-04	674	2.67E-04	741	4.14E-05
407	4.20E-06	474	5.92E-04	541	5.11E-04	608	5.58E-04	675	2.60E-04	742	4.02E-05
408	4.80E-06	475	5.68E-04	542	5.09E-04	609	5.57E-04	676	2.56E-04	743	3.88E-05
409	5.20E-06	476	5.41E-04	543	5.10E-04	610	5.58E-04	677	2.49E-04	744	3.76E-05
410	5.80E-06	477	5.17E-04	544	5.13E-04	611	5.56E-04	678	2.44E-04	745	3.67E-05
411	6.40E-06	478	4.96E-04	545	5.13E-04	612	5.58E-04	679	2.39E-04	746	3.59E-05
412	7.00E-06	479	4.75E-04	546	5.12E-04	613	5.57E-04	680	2.33E-04	747	3.46E-05
413	7.50E-06	480	4.59E-04	547	5.14E-04	614	5.54E-04	681	2.27E-04	748	3.33E-05
414	8.50E-06	481	4.48E-04	548	5.14E-04	615	5.53E-04	682	2.22E-04	749	3.24E-05
415	9.00E-06	482	4.36E-04	549	5.16E-04	616	5.48E-04	683	2.17E-04	750	3.12E-05
416	1.03E-05	483	4.31E-04	550	5.16E-04	617	5.48E-04	684	2.11E-04	751	3.03E-05
417	1.14E-05	484	4.28E-04	551	5.16E-04	618	5.47E-04	685	2.07E-04	752	2.94E-05
418	1.24E-05	485	4.29E-04	552	5.17E-04	619	5.43E-04	686	2.01E-04	753	2.84E-05
419	1.35E-05	486	4.28E-04	553	5.18E-04	620	5.41E-04	687	1.97E-04	754	2.76E-05
420	1.56E-05	487	4.27E-04	554	5.19E-04	621	5.39E-04	688	1.92E-04	755	2.69E-05
421	1.73E-05	488	4.23E-04	555	5.20E-04	622	5.37E-04	689	1.87E-04	756	2.60E-05
422	1.89E-05	489	4.27E-04	556	5.20E-04	623	5.37E-04	690	1.83E-04	757	2.50E-05
423	2.11E-05	490	4.25E-04	557	5.20E-04	624	5.33E-04	691	1.78E-04	758	2.45E-05
424	2.39E-05	491	4.24E-04	558	5.20E-04	625	5.31E-04	692	1.74E-04	759	2.36E-05
425	2.63E-05	492	4.23E-04	559	5.21E-04	626	5.26E-04	693	1.69E-04	760	2.29E-05
426	2.96E-05	493	4.25E-04	560	5.20E-04	627	5.23E-04	694	1.65E-04	761	2.23E-05
427	3.37E-05	494	4.22E-04	561	5.20E-04	628	5.21E-04	695	1.61E-04	762	2.12E-05
428	3.83E-05	495	4.23E-04	562	5.21E-04	629	5.18E-04	696	1.57E-04	763	2.05E-05
429	4.30E-05	496	4.22E-04	563	5.24E-04	630	5.13E-04	697	1.53E-04	764	2.01E-05
430	4.89E-05	497	4.24E-04	564	5.24E-04	631	5.08E-04	698	1.49E-04	765	1.95E-05
431	5.44E-05	498	4.24E-04	565	5.24E-04	632	5.05E-04	699	1.45E-04	766	1.89E-05
432	6.05E-05	499	4.28E-04	566	5.25E-04	633	5.03E-04	700	1.41E-04	767	1.84E-05
433	6.70E-05	500	4.30E-04	567	5.24E-04	634	4.97E-04	701	1.36E-04	768	1.76E-05
434	7.54E-05	501	4.35E-04	568	5.25E-04	635	4.93E-04	702	1.33E-04	769	1.72E-05
435	8.33E-05	502	4.38E-04	569	5.27E-04	636	4.90E-04	703	1.29E-04	770	1.67E-05
436	9.52E-05	503	4.40E-04	570	5.28E-04	637	4.82E-04	704	1.26E-04	771	1.64E-05
437	1.07E-04	504	4.44E-04	571	5.29E-04	638	4.78E-04	705	1.23E-04	772	1.57E-05
438	1.22E-04	505	4.46E-04	572	5.30E-04	639	4.72E-04	706	1.19E-04	773	1.50E-05
439	1.37E-04	506	4.50E-04	573	5.31E-04	640	4.67E-04	707	1.16E-04	774	1.46E-05
440	1.57E-04	507	4.52E-04	574	5.30E-04	641	4.60E-04	708	1.12E-04	775	1.42E-05
441	1.77E-04	508	4.56E-04	575	5.32E-04	642	4.54E-04	709	1.09E-04	776	1.37E-05
442	1.99E-04	509	4.57E-04	576	5.31E-04	643	4.50E-04	710	1.06E-04	777	1.35E-05
443	2.28E-04	510	4.62E-04	577	5.32E-04	644	4.46E-04	711	1.03E-04	778	1.27E-05
444	2.56E-04	511	4.62E-04	578	5.33E-04	645	4.39E-04	712	1.00E-04	779	1.26E-05
445	2.92E-04	512	4.65E-04	579	5.33E-04	646	4.34E-04	713	9.73E-05	780	1.27E-05
446	3.33E-04	513	4.66E-04	580	5.32E-04	647	4.27E-04	714	9.46E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	V1-24 @15W5000K	Sample ID	250728007-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.9	Humidity (%RH)	42.1

Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using a type C goniophotometer and software.</p> <p>The ambient temperature shall be maintained at $25 \pm 1^{\circ}\text{C}$, measured at a point not more than 1 m from the sample and at the same height as the sample.</p> <p>The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ± 0.2 percent under load.</p> <p>The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1.0° vertical intervals and 15° horizontal intervals.</p>

Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	277.0	60	0.059	15.1	0.919
NON-WORST CASE	120.0	60	0.122	14.5	0.994

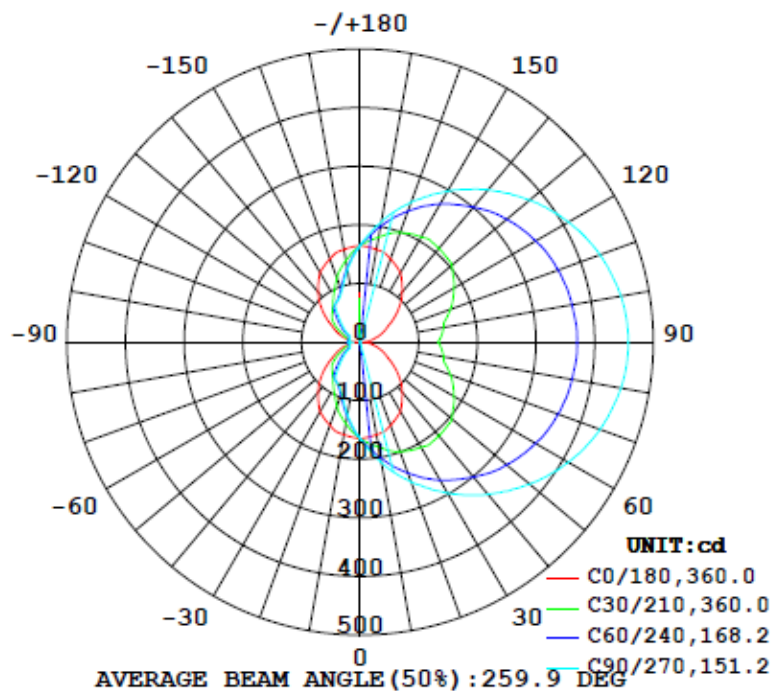
Test Result

Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement	BUG
	C0-180	C90-270	C0-180	C90-270		(0°-60°)	
1856	91.0	155.4	180.0	98.1	122.9	26.7%	B0-U4-G2

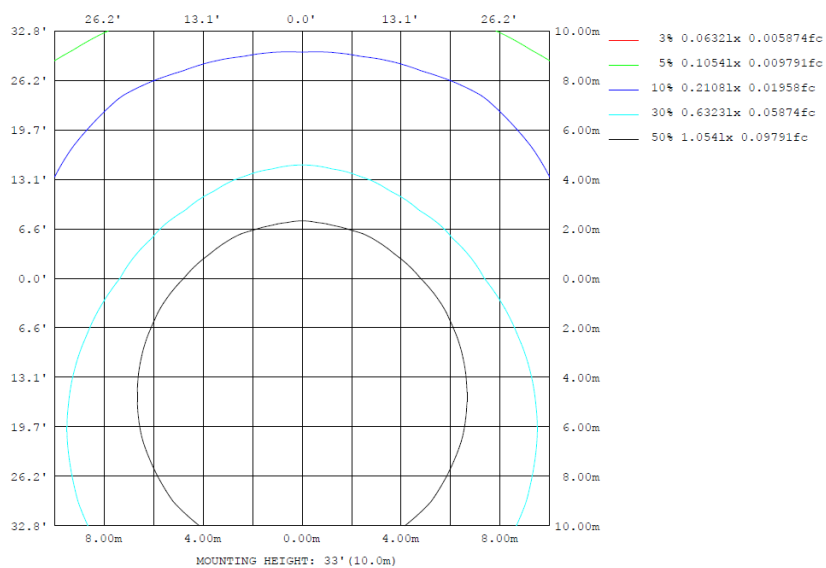
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

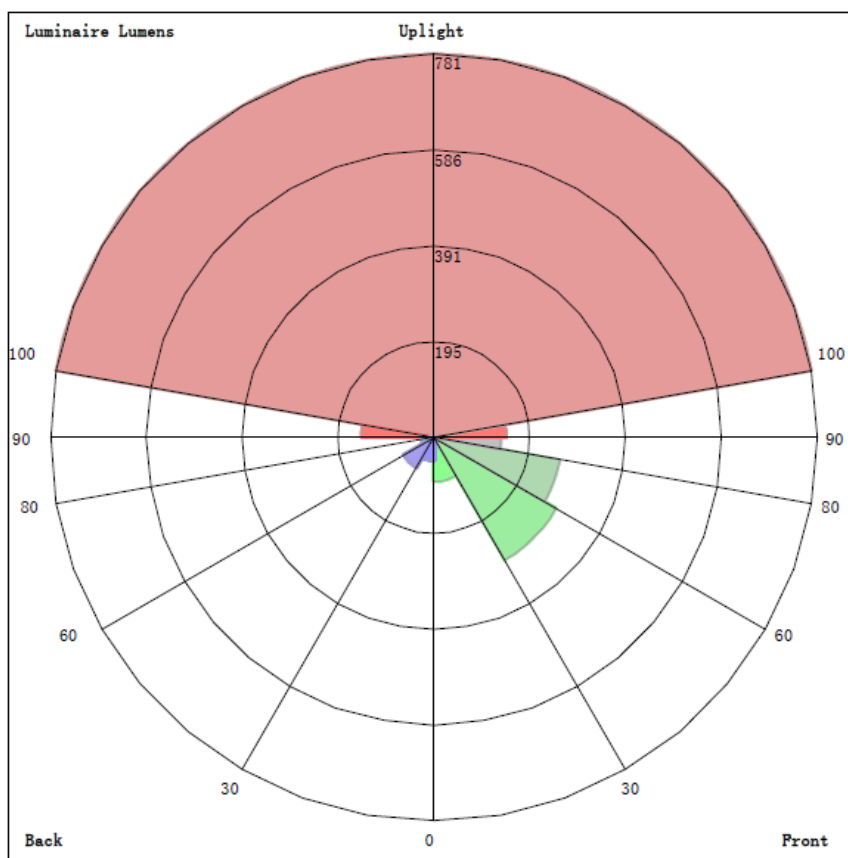
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	160.7	192.6	208.5	192.6	160.7	133.9	125.7	133.9	0- 10	15.64	15.64	0.84,0.84
20	151.4	222.0	254.0	222.0	151.4	105.4	92.95	105.4	10- 20	46.21	61.86	3.33,3.33
30	137.4	242.3	297.5	242.3	137.4	82.26	79.81	82.26	20- 30	75.02	136.9	7.37,7.37
40	111.7	259.8	339.0	259.8	111.7	72.85	58.77	72.85	30- 40	101.8	238.7	12.9,12.9
50	84.31	269.3	377.4	269.3	84.31	52.93	36.32	52.93	40- 50	122.1	360.8	19.4,19.4
60	55.18	273.3	410.0	273.3	55.18	32.81	20.30	32.81	50- 60	134.5	495.3	26.7,26.7
70	36.29	272.4	434.9	272.4	36.29	20.90	18.94	20.90	60- 70	141.2	636.5	34.3,34.3
80	19.17	267.2	451.8	267.2	19.17	20.49	18.12	20.49	70- 80	144.8	781.3	42.1,42.1
90	3.815	263.9	456.6	263.9	3.815	22.24	21.18	22.24	80- 90	146.8	928.1	50,50
100	19.17	267.2	451.8	267.2	19.17	20.49	18.12	20.49	90-100	146.8	1075	57.9,57.9
110	36.29	272.4	434.9	272.4	36.29	20.90	18.94	20.90	100-110	144.8	1220	65.7,65.7
120	55.18	273.3	410.0	273.3	55.18	32.81	20.30	32.81	110-120	141.2	1361	73.3,73.3
130	84.31	269.3	377.4	269.3	84.31	52.93	36.32	52.93	120-130	134.5	1495	80.6,80.6
140	111.7	259.8	339.0	259.8	111.7	72.85	58.77	72.85	130-140	122.1	1617	87.1,87.1
150	137.4	242.3	297.5	242.3	137.4	82.26	79.81	82.26	140-150	101.8	1719	92.6,92.6
160	151.4	222.0	254.0	222.0	151.4	105.4	92.95	105.4	150-160	75.02	1794	96.7,96.7
170	160.7	192.6	208.5	192.6	160.7	133.9	125.7	133.9	160-170	46.21	1841	99.2,99.2
180	165.1	165.1	165.1	165.1	165.1	165.1	165.1	165.1	170-180	15.64	1856	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	15.64	0-10	15.64	0.85%
10-20	46.21	0-20	61.85	3.36%
20-30	75.02	0-30	136.87	7.44%
30-40	101.85	0-40	238.72	12.97%
40-50	122.10	0-50	360.82	19.60%
50-60	134.48	0-60	495.30	26.91%
60-70	141.21	0-70	636.51	34.58%
70-80	144.78	0-80	781.29	42.45%
80-90	146.78	0-90	928.07	50.42%
90-100	146.78	0-100	1074.85	58.40%
100-110	144.78	0-110	1219.63	66.27%
110-120	141.21	0-120	1360.84	73.94%
120-130	134.48	0-130	1495.32	81.25%
130-140	122.10	0-140	1617.42	87.88%
140-150	101.85	0-150	1719.27	93.41%
150-160	75.02	0-160	1794.29	97.49%
160-170	46.21	0-170	1840.50	100.00%
170-180	15.64	0-180	1856.14	100.85%

4.2 Goniophotometer Test

LCS/BUG

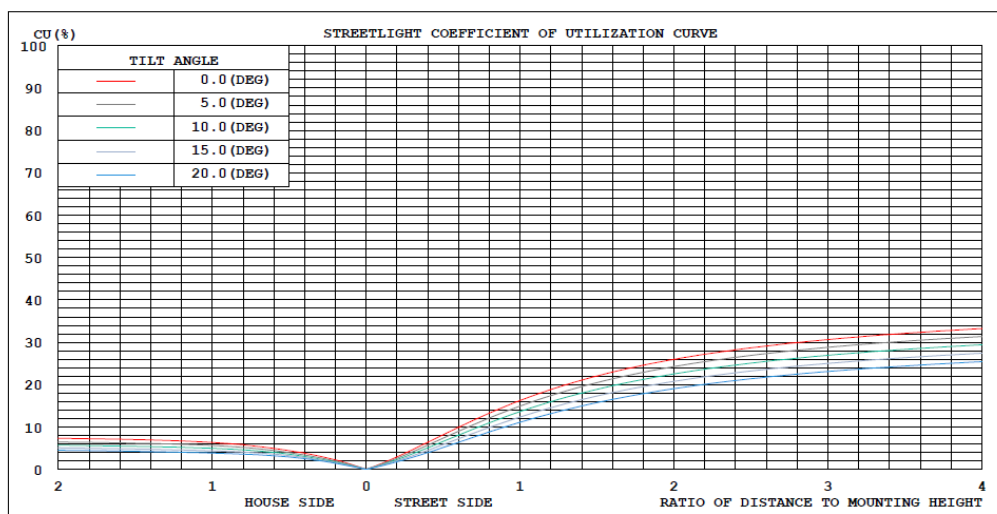


LUMINAIRE CLASSIFICATION SYSTEM (LCS)

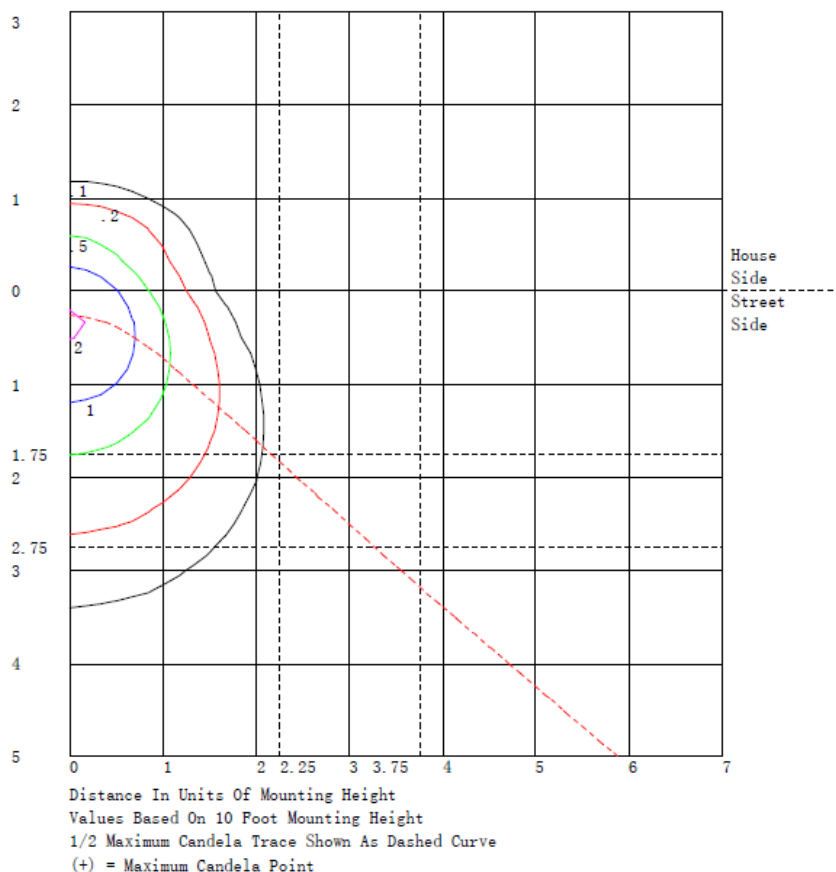
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	89.4	N.A.	4.8
FM - Front-Medium (30-60)	288.0	N.A.	15.5
FH - Front-High (60-80)	260.0	N.A.	14.0
FVH - Front-Very High (80-90)	136.3	N.A.	7.3
BL - Back-Low (0-30)	47.4	N.A.	2.6
BM - Back-Medium (30-60)	70.5	N.A.	3.8
BH - Back-High (60-80)	26.0	N.A.	1.4
BVH - Back-Very High (80-90)	10.5	N.A.	0.6
UL - Uplight-Low (90-100)	146.8	N.A.	7.9
UH - Uplight-High (100-180)	781.3	N.A.	42.1
Total	1856.2	N.A.	100.0
BUG Rating	B0-U4-G2		

4.2 Goniophotometer Test

Coefficients of Utilization



Isolines



4.2 Goniophotometer Test

Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
5	163	168	173	178	182	185	186	185	182	178	173	168	163	158	154	150	147	146	146
10	161	172	182	193	201	206	208	206	201	193	182	172	161	151	142	134	129	126	126
15	158	174	192	207	220	228	232	228	220	207	192	174	158	142	130	119	111	108	107
20	151	174	199	222	238	249	254	249	238	222	199	174	151	132	116	105	96.5	92.7	92.9
25	144	173	204	232	256	269	275	269	256	232	204	173	144	121	102	91.7	86.2	83.5	83.7
30	137	171	208	242	272	289	297	289	272	242	208	171	137	109	90.8	82.3	79.9	79.5	79.8
35	125	165	211	251	287	310	319	310	287	251	211	165	125	96.5	81.0	76.3	76.7	75.4	74.1
40	112	158	209	260	301	330	339	330	301	260	209	158	112	84.1	73.4	72.8	68.1	60.9	58.8
45	98.9	150	207	265	315	347	359	347	315	265	207	150	98.9	73.0	67.8	65.5	54.4	48.6	46.5
50	84.3	137	204	269	326	364	377	364	326	269	204	137	84.3	64.1	62.9	52.9	43.4	38.2	36.3
55	69.7	121	194	273	337	379	394	379	337	273	194	121	69.7	56.3	54.2	41.9	34.2	29.7	28.4
60	55.2	105	185	273	346	393	410	393	346	273	185	105	55.2	49.2	43.7	32.8	25.3	21.3	20.3
65	45.7	91.9	175	274	354	405	424	405	354	274	175	91.9	45.7	41.4	33.8	24.8	20.7	19.6	19.3
70	36.3	78.7	164	272	359	416	435	416	359	272	164	78.7	36.3	33.0	26.9	20.9	20.4	19.4	18.9
75	26.9	64.4	152	270	364	424	444	424	364	270	152	64.4	26.9	24.4	20.9	20.6	20.5	19.5	18.7
80	19.2	60.8	145	267	367	429	452	429	367	267	145	60.8	19.2	22.3	19.5	20.5	20.2	19.2	18.1
85	11.5	58.0	140	267	369	433	456	433	369	267	140	58.0	11.5	21.0	20.5	21.4	20.7	17.1	16.5
90	3.81	54.8	133	264	370	435	457	435	370	264	133	54.8	3.81	19.9	21.6	22.2	22.0	17.9	21.2
95	11.5	58.0	140	267	369	433	456	433	369	267	140	58.0	11.5	21.0	20.5	21.4	20.7	17.1	16.5
100	19.2	60.8	145	267	367	429	452	429	367	267	145	60.8	19.2	22.3	19.5	20.5	20.2	19.2	18.1
105	26.9	64.4	152	270	364	424	444	424	364	270	152	64.4	26.9	24.4	20.9	20.6	20.5	19.5	18.7
110	36.3	78.7	164	272	359	416	435	416	359	272	164	78.7	36.3	33.0	26.9	20.9	20.4	19.4	18.9
115	45.7	91.9	175	274	354	405	424	405	354	274	175	91.9	45.7	41.4	33.8	24.8	20.7	19.6	19.3
120	55.2	105	185	273	346	393	410	393	346	273	185	105	55.2	49.2	43.7	32.8	25.3	21.3	20.3
125	69.7	121	194	273	337	379	394	379	337	273	194	121	69.7	56.3	54.2	41.9	34.2	29.7	28.4
130	84.3	137	204	269	326	364	377	364	326	269	204	137	84.3	64.1	62.9	52.9	43.4	38.2	36.3
135	98.9	150	207	265	315	347	359	347	315	265	207	150	98.9	73.0	67.8	65.5	54.4	48.6	46.5
140	112	158	209	260	301	330	339	330	301	260	209	158	112	84.1	73.4	72.8	68.1	60.9	58.8
145	125	165	211	251	287	310	319	310	287	251	211	165	125	96.5	81.0	76.3	76.7	75.4	74.1
150	137	171	208	242	272	289	297	289	272	242	208	171	137	109	90.8	82.3	79.9	79.5	79.8
155	144	173	204	232	256	269	275	269	256	232	204	173	144	121	102	91.7	86.2	83.5	83.7
160	151	174	199	222	238	249	254	249	238	222	199	174	151	132	116	105	96.5	92.7	92.9
165	158	174	192	207	220	228	232	228	220	207	192	174	158	142	130	119	111	108	107
170	161	172	182	193	201	206	208	206	201	193	182	172	161	151	142	134	129	126	126
175	163	168	173	178	182	185	186	185	182	178	173	168	163	158	154	150	147	146	146
180	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	165	165	165	165	165														
5	146	147	150	154	158														
10	126	129	134	142	151														
15	108	111	119	130	142														
20	92.7	96.5	105	116	132														
25	83.5	86.2	91.7	102	121														
30	79.5	79.9	82.3	90.8	109														
35	75.4	76.7	76.3	81.0	96.5														
40	60.9	68.1	72.8	73.4	84.1														
45	48.6	54.4	65.5	67.8	73.0														
50	38.2	43.4	52.9	62.9	64.1														
55	29.7	34.2	41.9	54.2	56.3														
60	21.3	25.3	32.8	43.7	49.2														
65	19.6	20.7	24.8	33.8	41.4														
70	19.4	20.4	20.9	26.9	33.0														
75	19.5	20.5	20.6	20.9	24.4														
80	19.2	20.2	20.5	19.5	22.3														
85	17.1	20.7	21.4	20.5	21.0														
90	17.9	22.0	22.2	21.6	19.9														
95	17.1	20.7	21.4	20.5	21.0														
100	19.2	20.2	20.5	19.5	22.3														
105	19.5	20.5	20.6	20.9	24.4														
110	19.4	20.4	20.9	26.9	33.0														
115	19.6	20.7	24.8	33.8	41.4														
120	21.3	25.3	32.8	43.7	49.2														
125	29.7	34.2	41.9	54.2	56.3														
130	38.2	43.4	52.9	62.9	64.1														
135	48.6	54.4	65.5	67.8	73.0														
140	60.9	68.1	72.8	73.4	84.1														
145	75.4	76.7	76.3	81.0	96.5														
150	79.5	79.9	82.3	90.8	109														
155	83.5	86.2	91.7	102	121														
160	92.7	96.5	105	116	132														
165	108	111	119	130	142														
170	126	129	134	142	151														
175	146	147	150	154	158														
180	165	165	165	165	165														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	V1-24 @15W5000K	Sample ID	250728007-S1
Temperature (°C)	25.4	Humidity (%RH)	41.0

Test Method
<p>The samples were tested according to the and Ansi C82.77: 2002 and ANSI C82.77-10:2020</p> <p>The total harmonic distortion shall be measured to the 40th order.</p> <p>The ambient temperature shall be maintained at $25 \pm 1^{\circ}\text{C}$. The sample measurements were made using a digital power meter and power supply. The sample was operated at rated voltage and was stabilized before measurement. The total harmonic distortion was calculated.</p>

Test Results

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	iTHD(%)
120.0	60	0.122	14.5	0.994	4.66
277.0	60	0.059	15.1	0.919	21.19

5.0 Equipment List:

Equipment ID	Equipment Name	Last Cal.	Due Cal.
NTC-F01-001	Goniophotometer System	2024-11-07	2025-11-06
NTC-F01-006	2.0 meter Integrating Sphere	2024-11-07	2025-11-06
NTC-F01-012	Standard Lamp	2024-10-28	2025-10-27
NTC-F01-013	Standard Lamp	2024-10-28	2025-10-27
NTC-F01-031	Digital Power Meter	2025-08-04	2026-08-03
NTC-F01-019	Temperature & Humidity Meter	2024-10-29	2025-10-28

*****End of Report*****